SQL HELP

19/05/2021

- Query :Display the department number, member of employees in each department and the total number of employees in the company.

select deptno,t1.num "Dept strength", t2.num "Total employees"

from (select count(*) as num ,deptno from emp group by deptno) t1 full join (select

count(*) as num from emp) t2 on t1.num=t2.num

DEPTNO	Dept strength	Total employees
30	6	-
20	5	-
10	3	-
-	-	14

Find top 2 earner of emp table for each dept

Step-1: Find the employees of each dept with highest salary in dept

select * from emp where (sal,deptno) in(select max(sal),deptno from emp group by deptno)

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30
7902	FORD	ANALYST	7566	12/03/1981	3000	-	20
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10

Step2: Employees without highest salary record

- **select * from emp where (sal,deptno) not in(select max(sal),deptno from emp group by deptno)**

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	12/17/1980	800	-	20
7900	JAMES	CLERK	7698	12/03/1981	950	-	30
7876	ADAMS	CLERK	7788	01/12/1983	1100	-	20
7654	MARTIN	SALESMAN	7698	09/28/1981	1250	1400	30
7521	WARD	SALESMAN	7698	02/22/1981	1250	500	30
7934	MILLER	CLERK	7782	01/23/1982	1300	-	10
7844	TURNER	SALESMAN	7698	09/08/1981	1500	0	30
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20

Step3: Find 2nd highest record in each dept

```
select * from emp where (sal,deptno) in
(select max(sal),deptno from
(select * from emp where (sal,deptno) not in(select max(sal),deptno from emp group by
    deptno) )
group by deptno)
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10

Step4: Unite step1 and step3

```
select * from emp where (sal,deptno) in(select max(sal),deptno from emp group by deptno)
union
select * from emp where (sal,deptno) in(select max(sal),deptno from
(select * from emp where (sal,deptno) not in(select max(sal),deptno from emp group by
    deptno) )
group by deptno)
```

Result

Results Explain Describe Saved SQL History

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	02/20/1981	1600	300	30
7566	JONES	MANAGER	7839	04/02/1981	2975	-	20
7698	BLAKE	MANAGER	7839	05/01/1981	2850	-	30
7782	CLARK	MANAGER	7839	06/09/1981	2450	-	10
7788	SCOTT	ANALYST	7566	12/09/1982	3000	-	20
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10
7902	FORD	ANALYST	7566	12/03/1981	3000	-	20

7 rows returned in 0.01 seconds Download

1. Nth Highest salary (Method-1)

Table Name: Emp

EID	ENAME	SALARY
1	Amit	20000
2	Bhaskar	30000
3	Chandan	25000
4	Durgesh	28000
5	Parul	30000
6	Garima	25000
7	Akshita	28000
8	Sonu	40000
9	Ravi	37000
10	Rajesh	320000

The SQL query to calculate second highest salary in database table name as Emp

```
SQL> select min(salary) from

(select distinct salary from emp order by salary desc)

where rownum < 3;
```

Step 1 (**select distinct** salary **from** emp **order by** salary **desc**)

```
SALARY
---------
    40000
    37000
    32000
    30000
    28000
    25000
    20000
```

Step 2: **where** rownum < 3;

```
SALARY
---------
    40000
    37000
```

Step 3: Now **select min**(salary).

The **output** will be:
SALARY

37000
37000 **is** the **second**-highest salary.

Simillarly **to** find:
To find 3rd highest salary **set** rownum < 4

To find 4th highest salary **set** rownum < 5
And so **on**...

2. Nth Highest salary (Method-2)

```
select * from
( select ename, salary, dense_rank()   over(order by salary desc)rank from Emp)
where rank = & num;
```

In **order to** calculate the **second** highest salary use num = 2

In **order to** calculate the third highest salary use num = 3

and so **on**...

Step 1:

select ename, salary, dense_rank() over(order by salary desc) rank from Emp

- dense_rank() calculates the rank **of** each row in an ordered **group of rows** and **r eturns** the rank **as** a number.

Output of : select ename, salary, dense_rank() over(**order by** salary **desc**)rank **from** Emp

ENAME	SALARY	RANK
sonoo	40000	1
ravi	37000	2
rohit	32000	3
bhaskar	30000	4
parul	30000	4
akshita	28000	5
durgesh	28000	5
garima	25000	6
chandan	25000	6
amit	20000	7

Step 2: **where** rank = & num;

If num=2 then only rows of rank 2 are returned

ENAME	SALARY	Rank
ravi	37000	2

Step 3: Select *

ENAME	SALARY	Rank
ravi	37000	2

SELECT TOP(oracle does not support)

- The SQL SELECT TOP Statement is used to select top data from a table. The top clause specifies that how many rows are returned.

- If a table has a large number of data, select top statement determines that how many rows will be retrieved from the given table.

EMP_ID	NAME	SIR_NAME	USER_NAME
1	RAHUL	OJHA	ra@jha
2	ANU	SHARMA	anusha1
3	RAVI	SINGHAL	ravin

SELECT TOP 2 * **FROM** employee

EMP_ID	NAME	SIR_NAME	USER_NAME
1	RAHUL	OJHA	ra@jha
2	ANU	SHARMA	anusha1

3. Nth Highest salary (Method-3)

1.First task is to Identify the employee having TOP n non similar(distinct) salary.

2.Calculate the minimum salary among all the salaries resulted from above query, by doing this we get nth highest salary.

3.From the result of above query, identify the details of the employee whose salary is the minimum salary.

```
select * from emp

where salary =

( select min( salary ) from emp where  salary IN

(select distinct TOP N salary from emp order by salary desc )          )
```

Consider n = 5.

Step-1 ***Query1: select distinct TOP 5 salary from emp order by salary desc***

- 40000
- 37000
- 32000
- 30000
- 28000

Step-2: Query2: select min(salary) from emp where salary IN(query1)

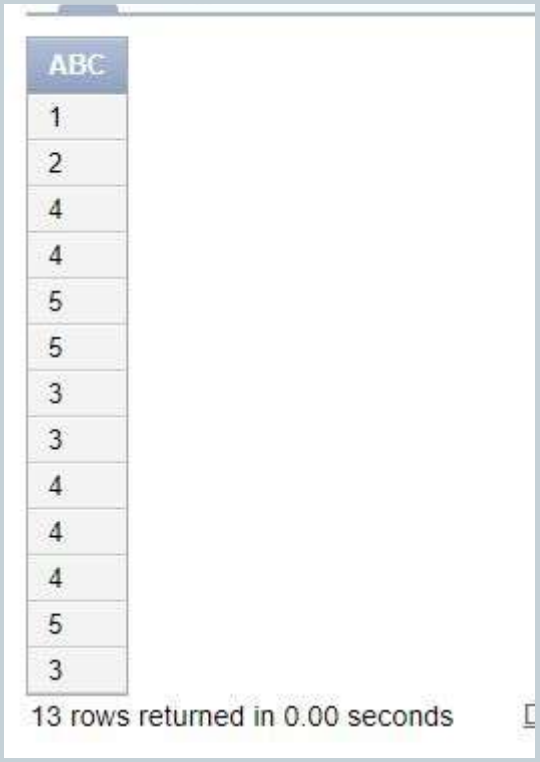
- 28000

Step-3 : select * from emp where salary =Query2

- ename salary
- akshita | 28000
- |

Delete duplicate values in a table

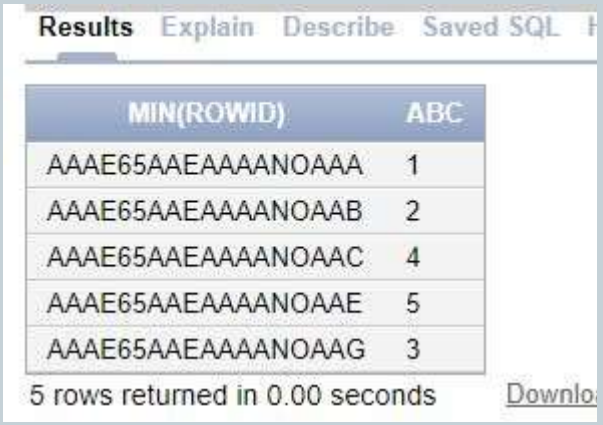
select * from xyz



ABC
1
2
4
4
5
5
3
3
4
4
4
5
3

13 rows returned in 0.00 seconds

Select min(rowid),abc from xyz group by abc



Results Explain Describe Saved SQL

MIN(ROWID)	ABC
AAAE65AAEAAAANOAAA	1
AAAE65AAEAAAANOAAB	2
AAAE65AAEAAAANOAAC	4
AAAE65AAEAAAANOAAE	5
AAAE65AAEAAAANOAAG	3

5 rows returned in 0.00 seconds

delete from xyz where rowid not in (Select min(rowid) from xyz group by abc)

select * from xyz

ABC
1
2
4
5
3

List those employees whose subordinate has subordinate

```
select distinct e3.ename
from emp e1,emp e2,emp e3
where e1.mgr=e2.empno and e2.mgr=e3.empno
```

ENAME
JONES
KING

List those employees whose manager has manager

```
select distinct e1.ename
from emp e1,emp e2,emp e3
where e1.mgr=e2.empno and
e2.mgr=e3.empno
```

ENAME
ALLEN
FORD
MILLER
WARD
SMITH
SCOTT
TURNER
MARTIN
ADAMS
JAMES

•Display the name, salary of the employees who has got maximum and minimum salary in one row with proper heading

```
select *
from (select max(sal) as maximum from emp),(select min(sal) as minimum from
emp)
```

MAXIMUM	MINIMUM
5000	800

Division Query